Beware of Carbon Tetrachloride
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Beware of Carbon Tetrachloride

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A recent article in ABT describes some of the advantages of carbon tetrachloride as a killing agent[1]. In explaining its action the author says that "it is as poisonous for mammals as it is for insects under similar conditions. The . . . carbon tetrachloride gas quickly fills the bottom of the bottle, floating the oxygen-containing air above it . . . The insect dies for want of oxygen . . ." He says also that two tablespoons of carbon tetrachloride placed in a box will kill a trapped animal "quickly and humanely." Some of these statements seem to say that one need take no more precautions in dealing with carbon tetrachloride than with an equal volume of carbon dioxide gas. Others indicate that the killing action of carbon tetrachloride vapor is much more than a simple smothering effect.

That the latter impression is the correct one is supported by evidence from other sources. *Consumers Research Bulletin* has repeatedly warned of the danger of carbon tetrachloride poisoning when this substance is used as a solvent in dry cleaning and as a fire extinguisher fluid. In May, 1953, the *Bulletin* reprinted an editorial from the *Journal of the American Medical Association* which said that "carbon tetrachloride is potentially toxic on inhalation, on contact with the skin, or mucous membrane, or orally. Toxicity may result from a single brief exposure to a highly concentrated vapor or prolonged, excessive, or repeated exposure . . . Generally, the symptoms and signs of carbon tetrachloride poisoning are similar to the ones appearing in various stages of hepatitis, nephritis, and congestive heart failure.[2] In September, 1954, the *Bulletin* reports a case in which a fire extinguisher carried by a Coast Guard vehicle was jarred loose and spilled a portion of its charge of carbon tetrachloride. As a result one of the men in the vehicle became ill and was hospitalized for more than a month.

From the facts reported above it would appear that biology teachers should use carbon tetrachloride with great care—only in small amounts and outdoors or where the vapor can be quickly dissipated by ventilation through open doors and windows. This care becomes doubly important when they are supervising the use of this dangerous substance by students and student assistants.

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[1]Allen Lake, "Carbon Tetrachloride in the Biology Laboratory." *The American Biology Teacher*, March, 1955, pages 108-109.

[2]From the issue of January 3, 1953.